Health Risks in Alaska
Among Alaska Natives

Alaska Behavioral Risk Factor Survey

1991-1993

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Foreword

Behavior and lifestyle play an important part in determining health status and lifespan. The leading causes of death in Alaska and among Alaska Natives (cancer, heart disease and injuries) are closely related to lifestyle factors. Lifestyle and behavioral factors that affect health include diet, exercise, use of alcohol and tobacco, and preventive health care practices.

The Behavioral Risk Factor Surveillance System (BRFSS), developed by the Centers for Disease Control and Prevention, collects information about health risk behaviors from a sample of adult Alaskans each year. *Health Risks in Alaska Among Alaska Natives* presents information collected by the BRFSS regarding health risk behaviors among Alaska Native people.

One of the major goals of the national health initiative known as Healthy People 2000 is to "reduce health disparities among Americans."[1] Disparities in health status exist within and across groups in the United States, but are most visible when evaluating the health status of racial and ethnic minority populations.[2] This report provides baseline measurements for many of the Healthy People 2000 health status indicators. The intent is to identify factors which individuals and communities may modify to improve their own health, as well as to identify areas on which health agencies and medical care systems may focus resources to improve the health of Alaska Natives.

We are pleased to present this report.

Karen Perdue
Commissioner
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Overview

Behaviors linked to health problems are referred to as behavioral risk factors, and include such things as tobacco and alcohol use, being overweight, lack of physical activity and not using safety belts. Behavioral risk factors are associated with the leading causes of death in the United States and Alaska. Many chronic diseases and premature deaths could be prevented through modification of these behavioral risk factors.

Data on behavioral risk factors are necessary for assessing risk for chronic diseases, formulating intervention strategies, justifying resources to support these strategies and proposing new policies or legislation. Surveillance of behavioral risk factors allows us to monitor trends in health related behavior and to measure progress toward reaching state and national health objectives.

The Behavioral Risk Factor Surveillance System is the primary method for states to monitor health risk behaviors. In cooperation with the Centers for Disease Control and Prevention (CDC), the Behavioral Risk Factor Surveillance System was implemented in Alaska in 1990. In 1991, the Alaska Behavioral Risk Factor Surveillance System became part of an ongoing national surveillance system, conducting telephone surveys monthly.

This is the first report summarizing health risk behaviors for the Alaska Native population, based on the first three years of BRFSS data available in Alaska. Combined survey results from January 1991 to December of 1993 are presented. Of the total sample of 4,604 respondents, 927 are Alaska Native.

These data represent Alaskan adults, aged 18 and older with telephones. Prevalence estimates for the Alaska Native population are compared to the general population in Alaska. In this report prevalence estimates are rounded to the nearest whole percent.

The Alaska Native Population

Alaska is the largest state, encompassing about one fifth of the total land mass of the contiguous United States. Because of its size, there are huge variations in topography and climate from one part of the state to the other. Alaska's name is derived from the Aleut word Alyeska, meaning great land.

Alaska Natives comprise the second largest population group in Alaska, accounting for approximately 16% of the total population. In the United States, 0.8% of people are American Indian/Alaska Native.[3]

The term Alaska Native is used to refer to the original inhabitants of the land that is now the state of Alaska. In the 1990 census, Alaska Natives numbered 86,252.[4] These include Eskimos, Aleuts, and Indians who differ from each other in origin, language and culture. The small number of American Indians residing in Alaska who are members of tribes originating in the contiguous United States are also included in the Alaska Native census count.

Just over one half of the Alaska Native population is Eskimo. Eskimos traditionally occupied the northern and western coasts and rivers and include people who speak four Eskimo languages (Inupiaq, Central and Siberian Yupik and Sugpiaq).

About one-sixth of the Alaska Native population is Aleut. Aleut people originally lived on the Aleutian Islands and the end of the adjacent Alaskan Peninsula. The Eskimo and Aleut are believed at one time to have been closely related.

Indians of Alaska include the Athabascans and the Pacific Coastal Indian tribes (Tlingit, Tsimpsian, and Haida). Athabascans reside primarily in the interior. There are many different Athabascan dialects spoken. The Tlingit, Tsimpsian and Haida reside primarily in the southeastern panhandle of Alaska, adjacent to British Columbia, each with a distinct language.

In addition to ethnic differences, the Alaska Native population differs in other ways from other U.S. populations including American Indians residing in the contiguous United States. There is no road system to over 80% of Alaska's rural, predominantly Native communities. Therefore air transportation is the main means of travel, except for seasonal travel by boat or snowmachine. Because of weather and geography, air transportation can be unreliable and expensive. Communication is also difficult. However, through satellite, all communities have a phone even though individual homes may not.

Although more and more Alaska Natives now reside in urban centers, over half of the population live in remote, rural areas. Currently 101,126 Alaska Natives (Indian Health Service 1996 estimate) are distributed widely throughout Alaska in over 200 communities delineated as Alaska Native Villages. In contrast to other states, there is only one Indian reservation in Alaska (Metlakatla) populated by approximately 1,000 people on Annette Island in the southeast.

Health Care System

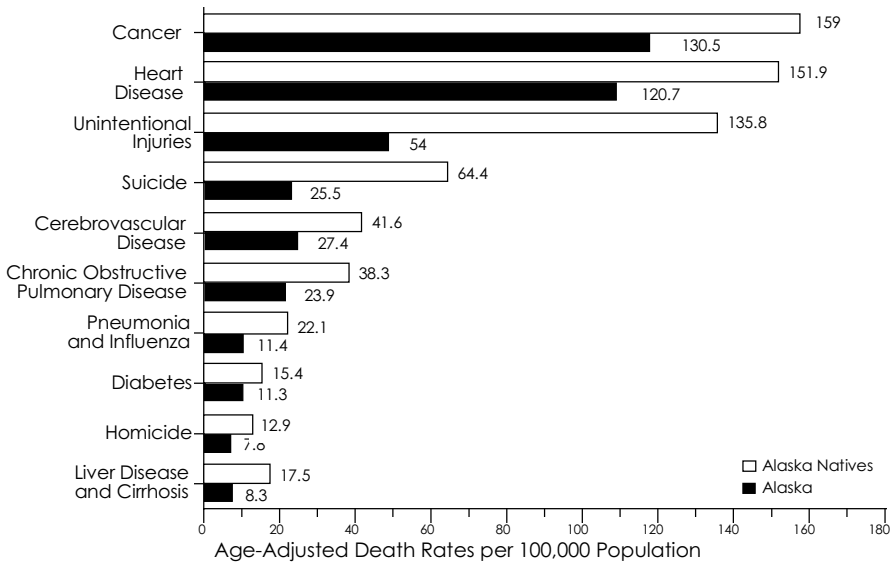
Based on treaty agreements, the federal government is responsible for health care of federally recognized American Indian tribes and Alaska Natives. The agency responsible is the Indian Health Service (IHS), Public Health Service, U.S. Department of Health and Human Services. In Alaska, health care is now administered and managed largely by tribal health organizations in nine service delivery units defined mainly by cultural similarities and transportation patterns.

In general, medical care is delivered by a three tiered system in rural Alaska. The principal provider of primary care is the community health aide/practitioner (CHAP) chosen by the community council and trained specifically to deliver acute care to community residents. The health aide reports to physicians at the hospital or clinic located in the larger (hub) community of the region. Patients may be referred to the regional health centers or to the multi-specialty tertiary care hospital in Anchorage. Services may also be provided to communities by itinerant workers, particularly state public health nurses. Specialty services may be provided by private practitioners under contract to tribal health organizations or the Indian Health Service.

Figure 1

Age-Adjusted Death Rates for Leading Cause of Death

Alaska Natives, Alaska - 1994



◆ Rates are age-adjusted to the U.S. 1940 population; see Appendix C for ICD-9 codes for causes of death. Data from Vital Statistics 1994 Report.

Birth Rate, Infant Mortality and Life Expectancy

The birth rate for Alaska Natives is higher than that for all Alaskans (24.6 vs. 17.6 per 1000 population[5]). The infant mortality rate is also higher than that for Alaska (13.0 vs. 8.8 per 1000 live births for years 1990-94[5]).

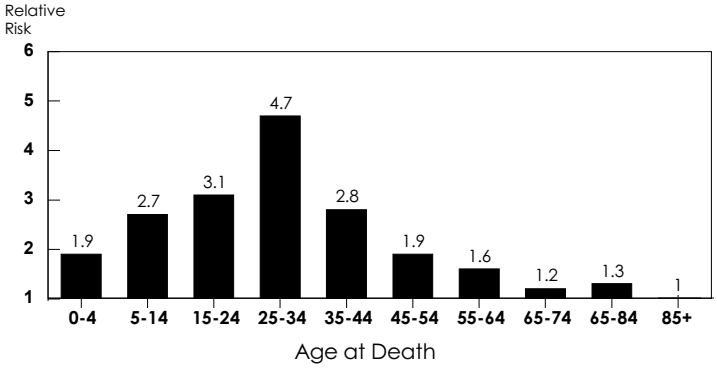
Life expectancy at birth for Alaska Natives is seven years shorter than that for all Alaskans (68.0 years vs. 75.1 years[5]). The leading causes of death for Alaska Natives are unintentional injuries, cancer and heart disease *(Figure 1).*

At almost every age of life, Alaska Natives are at greater risk of death than are non-Natives. The differences are most pronounced in the age group 25-34 *(Figure 2)*. The excess deaths and years of productive life lost among younger people are due largely to unintentional injury, suicide and homicide.

Deaths are also increasing from heart disease, stroke, cancer and diabetes, in part because of increased life expectancy and because of the increasing prevalence of health risk behaviors.

Figure 2

Relative Risk◆ of Death: Alaska Native Mortality Rate versus Non-Native Mortality Rate, 1990 - 1994

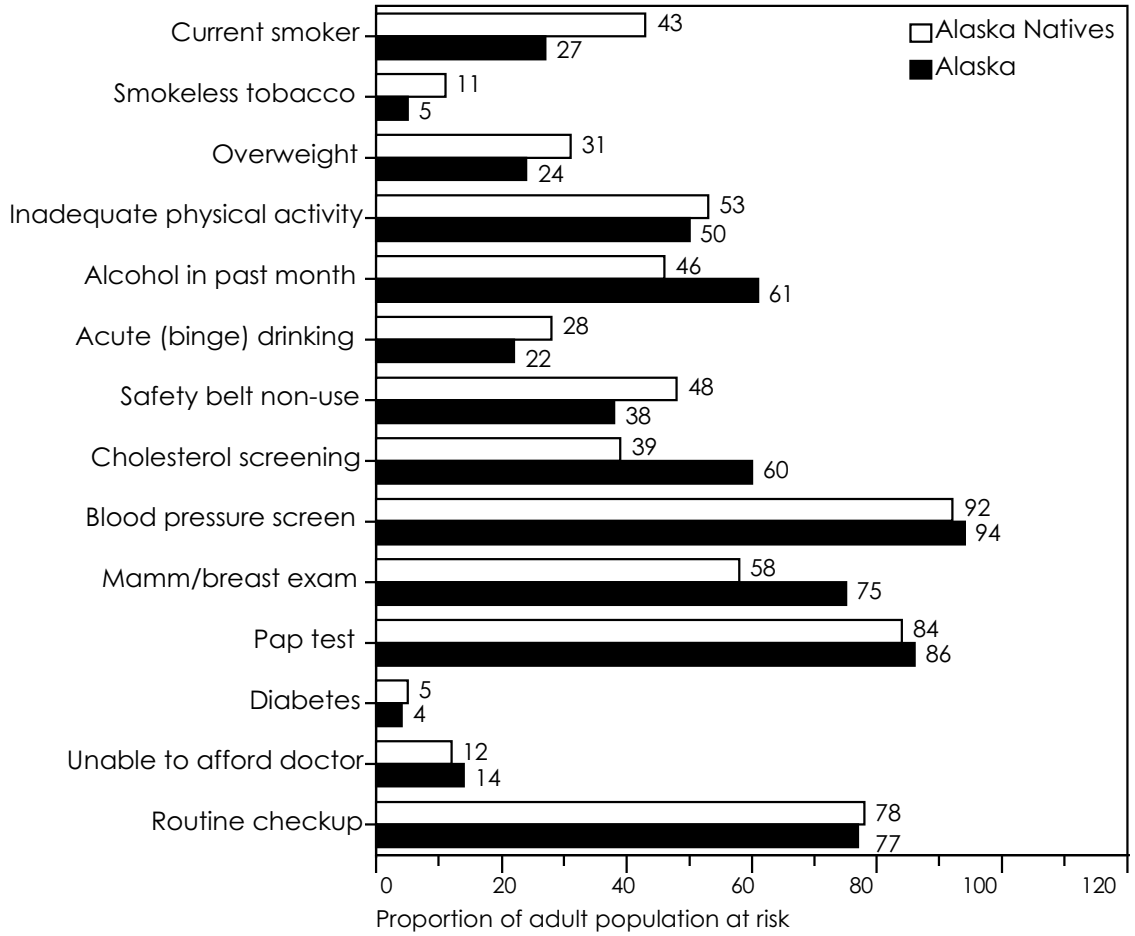


◆The relative risk is the Alaska Native rate divided by the non-Native rate; a relative risk of 1.0 indicates that there is no difference between the two rates.

Summary of Health Risks

Figure 3

Summary of Health Risk Behaviors◆ Alaska Natives and Alaska 1991-93



◆ See Appendix B for definitions of risk factors.

For many of the health risk behaviors measured in the BRFSS, Alaska Natives are at increased risk compared to the general population of Alaska *(Figure 3)*. More details about the health risk behaviors are presented in the body of the report. When many of the health risk behaviors are examined by education and income, the differences between Alaska Natives and the overall population tend to decrease.

Risk Behaviors

Tobacco Use

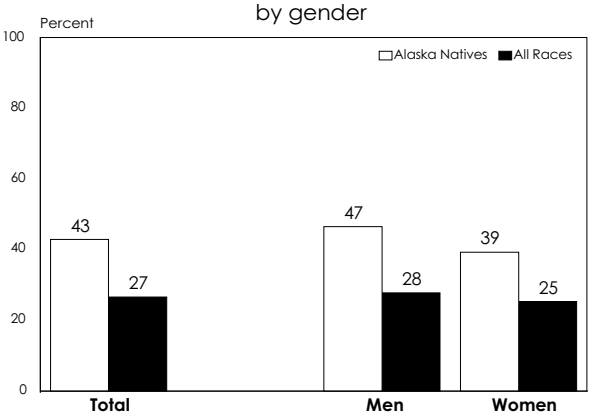
Tobacco is one of the leading preventable causes of death and medical illness in the U.S., in Alaska and among Alaska Natives.[6] Among Alaska Natives, smoking related deaths account for approximately 18% of all deaths.[7] Smoking accounts for approximately 90% of lung cancer deaths, and lung cancer is the leading cause of cancer death. Rates for lung cancer have increased more rapidly than any other cancer in this population in the last 25 years.[8] Alaska Native women have the highest cancer mortality rates of all U.S. women, largely because of high smoking rates.[9]

Although tobacco has not been used in sacred ceremonies in Alaska as it has by American Indians elsewhere, tobacco was introduced by Europeans 200 years ago and was readily incorporated into the culture.[10,11] Tobacco use has included cigarettes as well as smokeless tobacco, the latter particularly in rural areas and in very young children.[12]

Figure 4

Current Smokers

by gender



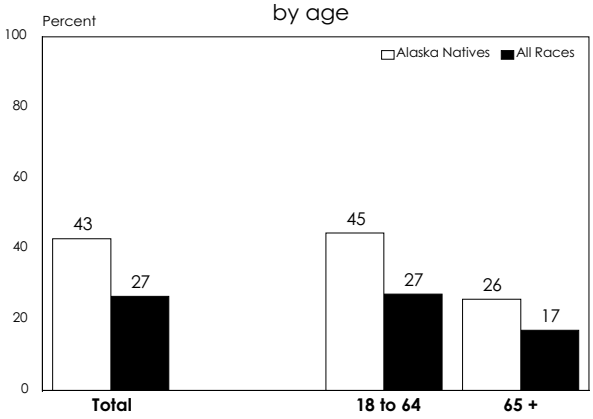
Alaska Natives are more likely to be smokers than the overall population.

Among Alaska Natives, 47% of men and 39% of women are current smokers.

Figure 5

Current Smokers

by age

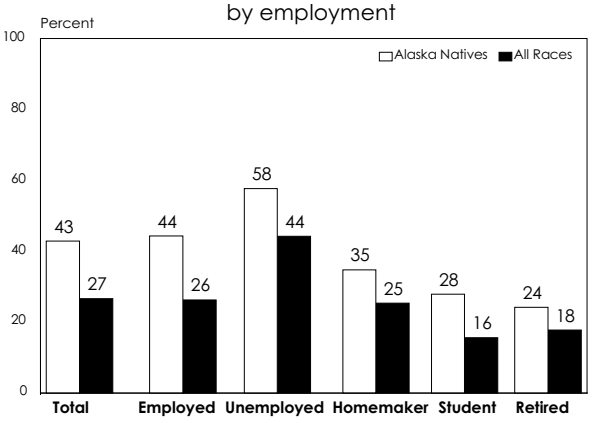


Among Alaska Natives, as well as among the overall population, smoking is less frequent among older people.

Figure 6

Current Smokers

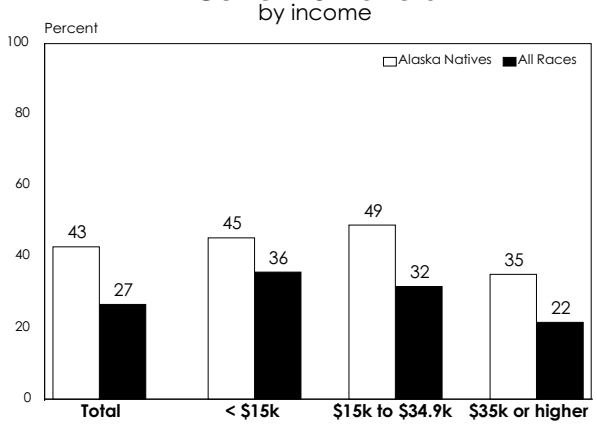
by employment



Unemployed persons are more likely to be current smokers than are employed persons, homemakers, students or retired persons. Trends are similar for Alaska Natives and the overall population.

Figure 7

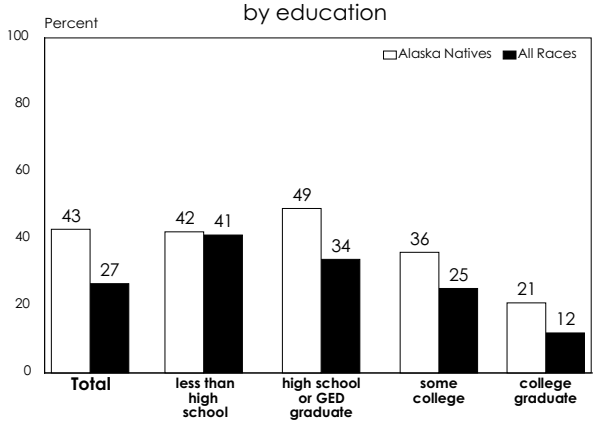
Current Smokers
by income



Individuals in higher income level households are less likely to be current smokers. Trends are similar for Alaska Natives and the overall population.

Figure 8

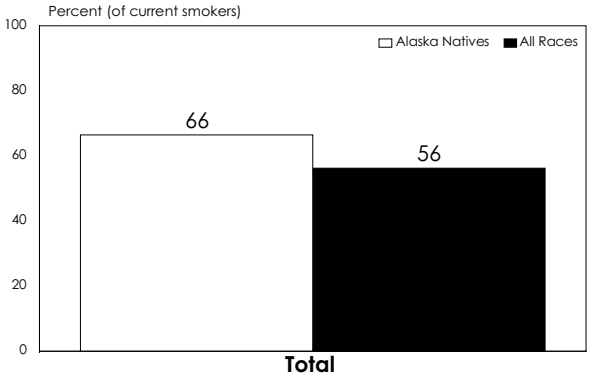
Current Smokers
by education



College graduates are the least likely to be current smokers, both among Alaska Natives and the overall population. Among Alaska Natives, 21% of college graduates smoke, as compared to 49% of those who have a high school education. Similar patterns are found in the overall Alaskan population and in the United States.

Figure 9

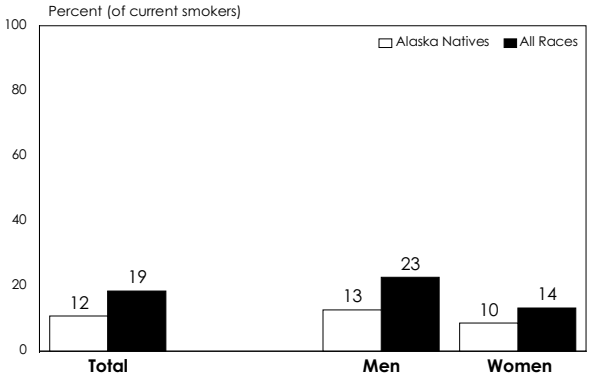
Current Smokers
(who quit for at least one day in past year)



Alaska Native smokers are somewhat more likely to report having quit smoking in the past year. Among both men and women, the percent who stopped smoking for at least one day are similar; additionally, little difference by educational level was found (data not shown).

Figure 10

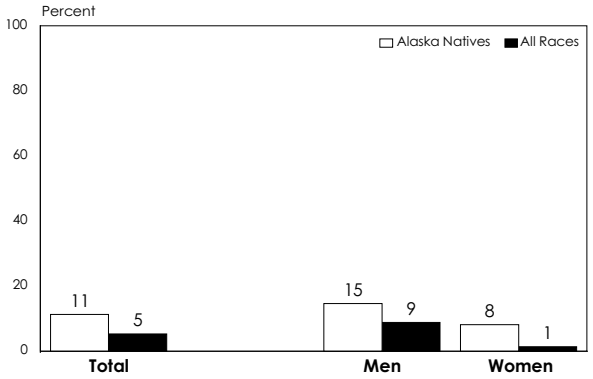
Current Smokers
(who smoke one or more packs per day)
by gender



Although Alaska Natives are more likely to be current smokers, Alaska Native smokers are less likely to smoke heavily than are smokers in the overall population. Among Alaska Native smokers, 12% smoke a pack or more per day, as compared to 19% of smokers in the overall population.

Figure 11

Current Snuff or Chewing Tobacco Users
by gender



Alaska Natives are about twice as likely to use smokeless tobacco (chewing tobacco or snuff) as are persons in the overall population; men are more likely to use smokeless tobacco than are women.

Use of smokeless tobacco decreases as educational level increases. Of Alaska Native college graduates 3% use smokeless tobacco, as compared to 16% of those with a high school education (data not shown).

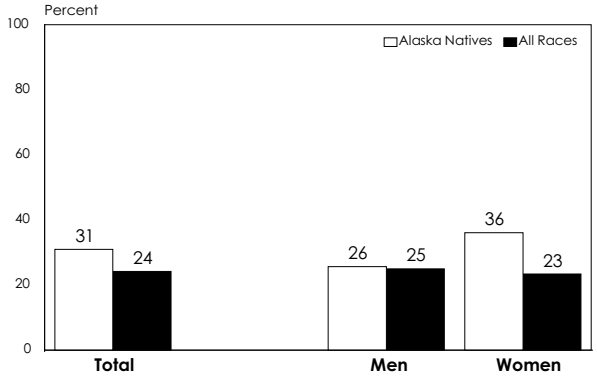
Overweight

Being overweight puts one at risk for hypertension, diabetes and heart disease, as well as certain cancers and other conditions, such as blood clots, sleep apnea and arthritis. Being overweight has been associated with increased mortality among adults.[13] Obesity can affect the quality of life by limiting mobility and physical endurance, as well as by having a social impact. The prevalence of being overweight has increased dramatically in the United States over the past 15 years.[14] Similarly, the prevalence of being overweight has been increasing among Alaska Natives (Cynthia D. Schraer, MD, Director, Diabetes Program, Alaska Native Medical Center — personal communication).

For this survey, overweight is defined as a body mass index (BMI) for women of 27.3 or greater, and for men of 27.8 or greater. BMI equals weight in kilograms divided by the height in meters squared.

Figure 12

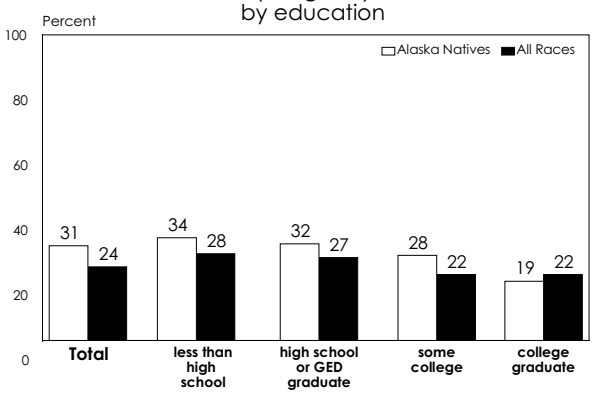
Overweight
(using BMI)
by gender



Alaska Natives are more likely to be overweight than the general population; the differences are most evident among women. The prevalence of being overweight increases with age, similar to the overall population.

Figure 13

Overweight
(using BMI)
by education



As educational level increases, the prevalence of overweight decreases, both among Alaska Natives and the overall population.

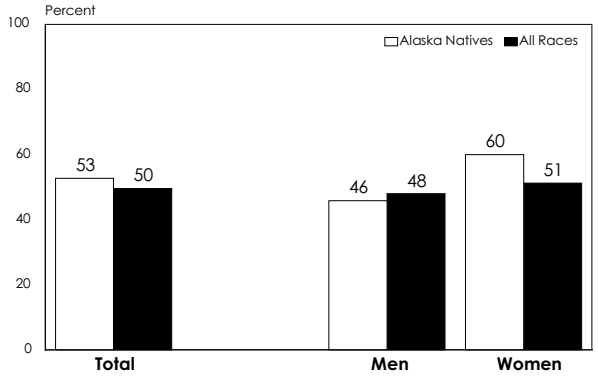
Inadequate Leisure Time Physical Activity

Regular physical activity has been shown to reduce the risk for coronary heart disease, hypertension and diabetes. The recent Surgeon General's report recommends that people of all ages engage in a minimum of 30 minutes of accumulated physical activity of moderate intensity (walking, gardening, stair climbing) on most, if not all days of the week.[15]

In this survey inadequate leisure time activity is defined as no leisure time physical activity or activity less than 20 minutes fewer than 3 times per week. These data were collected in 1991 and 1992 only. The data pertain only to leisure time activity and do not include occupational activity.

Figure 14

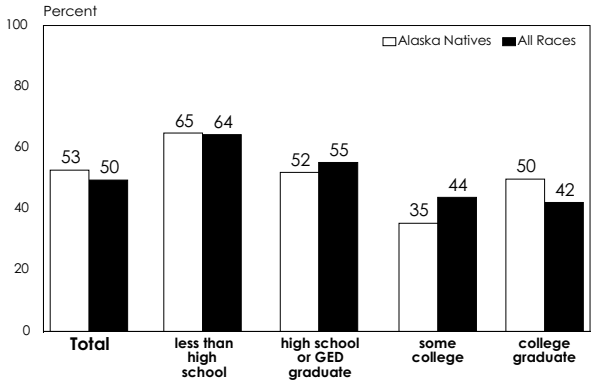
Inadequate Leisure Time Physical Activity
by gender



Approximately half of Alaska Natives report inadequate leisure time physical activity, similar to the prevalence for all Alaskans. Alaska Native women are more likely to report inadequate leisure time physical activity than are Alaska Native men.

Figure 15

Inadequate Leisure Time Physical Activity
by education



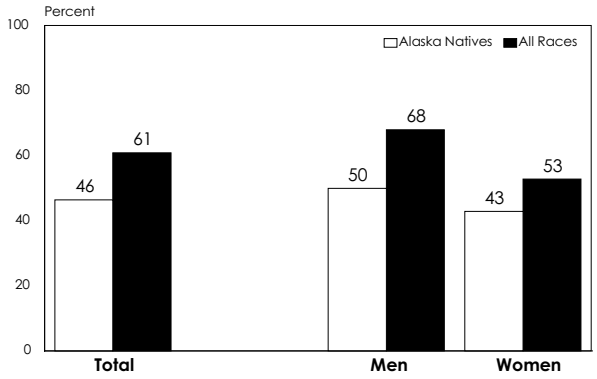
As educational level increases, the prevalence of leisure time physical activity increases. Similar trends are seen for Alaska Natives as for all Alaskans. Some of the differences by educational level may be because the survey does not ask about occupational physical activity, which is likely to be more common among those at lower educational levels.

Alcohol Use

Alcohol is a major contributing factor in homicides, suicides and unintentional injuries. Alaska had the highest rate of injury death among states in the U.S. during the time period 1988-92, and the highest rates occurred in rural Alaska.[16] In Alaska, alcohol is responsible for approximately 11% of all deaths, and among Alaska Natives, alcohol is responsible for approximately 16% of all deaths.[17]

Figure 16

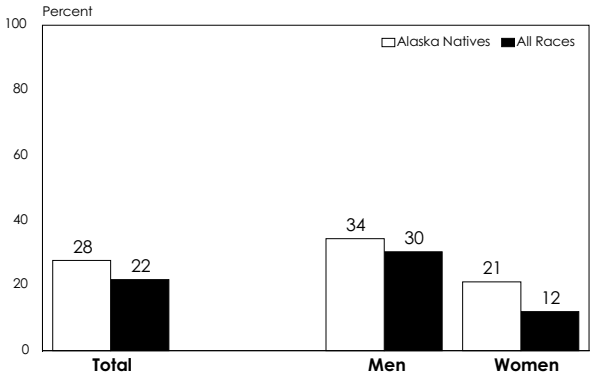
Alcohol Use in Past Month
by gender



Alaska Native people are less likely to report having used alcohol in the past month. Approximately half of Alaska Natives (50% of men and 43% of women) report using alcohol in the past month. People in the age group 25-34 are most likely to report recent use of alcohol (59% of Alaska Natives and 68% of all Alaskans).

Figure 17

Binge Drinking
(five or more drinks at one time in the past month)
by gender

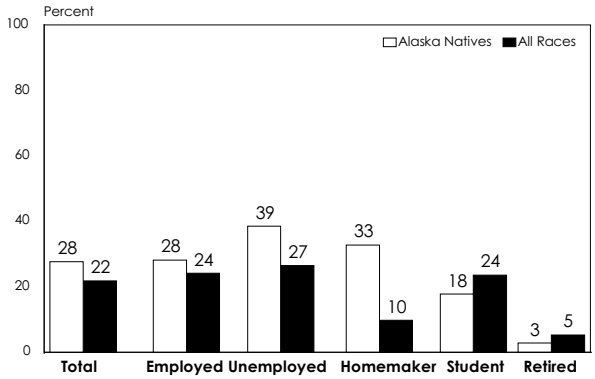


Although Alaska Natives are less likely to report drinking in the past month, they are more likely to report binge drinking (having had 5 or more drinks on an occasion at least once in the past month). Among Alaska Natives, 46% report having had at least one drink in the past month, as compared to 61% overall. However, 28% of Alaska Natives report binge drinking in the past month, as compared to 22% overall. Therefore, Alaska Natives who drink are more likely to binge drink, as compared to Alaskans overall. Binge drinking is reported more frequently by men than by women.

Figure 18

Binge Drinking

(five or more drinks at one time in the past month)
by employment

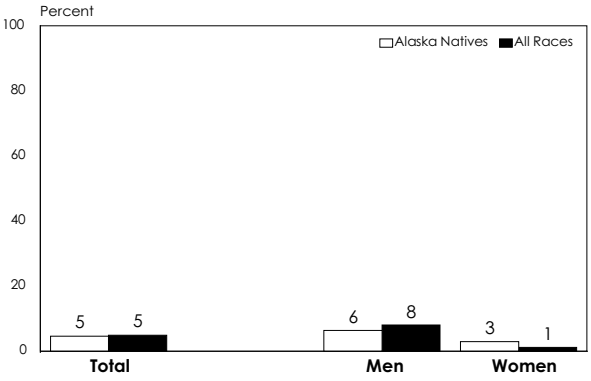


Among Alaska Natives, binge drinking is more common among those reporting their occupation as unemployed (39%) or homemaker (33%).

Figure 19

Chronic Drinking

(sixty or more drinks in the past month)
by gender

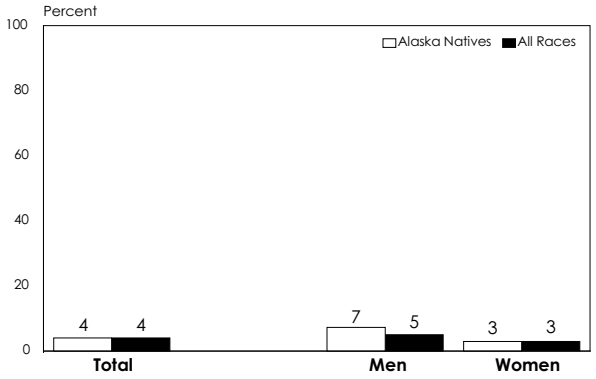


Alaska Natives report a prevalence of chronic drinking (having 60 or more drinks in the past month) similar to that for all Alaskans. Men are more likely to report chronic drinking than women.

Figure 20

Drinking and Driving

(drove at least once, after drinking, in the past month)
by gender

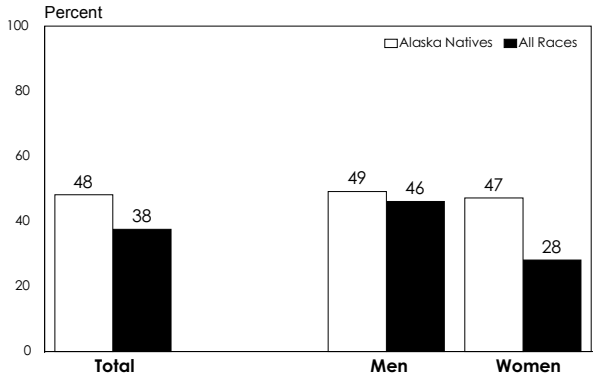


Among Alaska Natives, 4% report driving at least once in the past month after "perhaps too much to drink." The prevalence of drinking and driving is similar for all Alaskans, and men are more likely to report drinking and driving than are women.

Safety Belt Non-Use

One of the leading causes of death among Alaska Natives is unintentional and intentional injuries. Although alcohol may play a role in many of the deaths, other safety issues should be considered. Occupant restraint and helmet use are essential for reducing the severity of motor vehicle injuries. Other safety issues include using personal flotation devices to help prevent drowning, and limiting exposure to a handgun in the household.[18]

Figure 21
Safety Belt Non-Use
by gender



Alaska Natives are less likely to report always using safety belts than are all Alaskans. Men are less likely to use safety belts than are women.

Preventive Health Care Practices

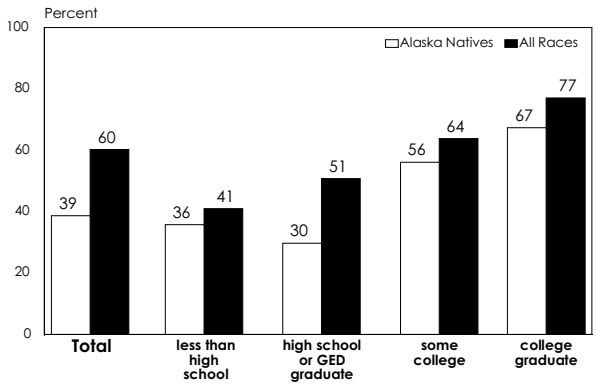
Preventive health care practices include screening tests, counseling interventions, immunizations and chemoprophylaxis, which have a goal of preventing the onset of disease or of detecting disease at an early treatable stage.[19] The BRFSS collects information on several of the recommended preventive health care practices.

Cholesterol Screening

Elevated cholesterol level leads to premature heart disease among all ethnic groups, and is one of the modifiable risk factors for heart disease. The National Cholesterol Education Program recommends that cholesterol levels be checked every five years among all adults, and more frequently among those found to have a high cholesterol level.[20]

Figure 22

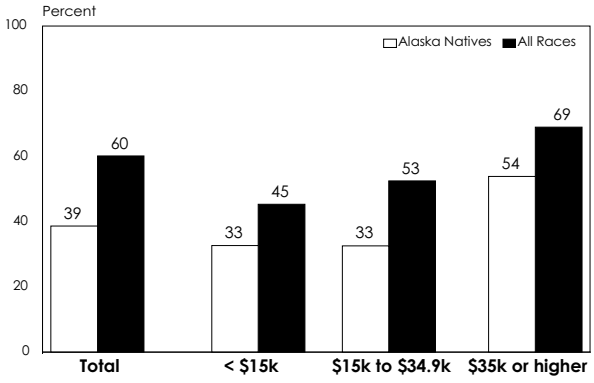
Cholesterol Checked in Past 5 Years
by education



Only 39% of Alaska Native adults reported having had a cholesterol test in the past five years, as compared to 60% of the overall population. The prevalence of having had a cholesterol test increases with increasing level of education among Alaska Natives, as well as among the overall population.

Figure 23

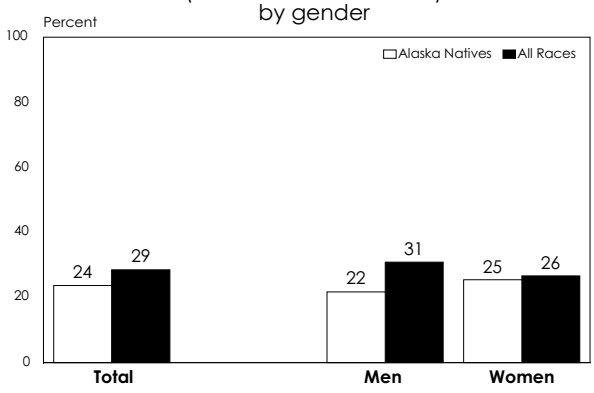
Cholesterol Checked in Past 5 Years
by income



The prevalence of having had a cholesterol test also increases with household income among Alaska Natives, as well as among the overall population. However, at each level of income, Alaska Natives are less likely to report a cholesterol test than the overall population.

Figure 24

Ever Told That Cholesterol Was High
(of those ever checked)
by gender



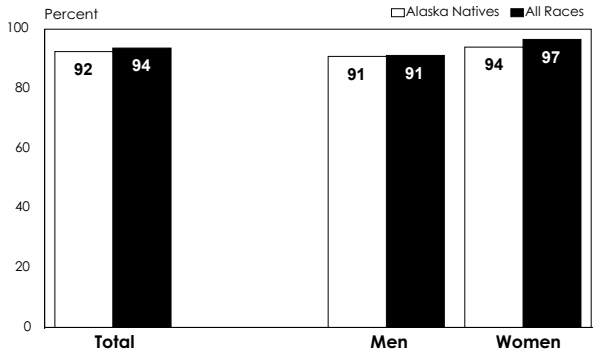
Although Alaska Natives are less likely to be tested, 24% of those who have been tested report having been told that their cholesterol was high. This result is very similar to that for the overall population (29%).

Blood Pressure Screening

High blood pressure is one of the modifiable risk factors for heart disease and stroke. Untreated high blood pressure can also lead to heart and kidney failure. The U.S. Preventive Services Task Force recommends blood pressure screening for all adults every two years.[19] The data show that the vast majority of Alaska Natives have been screened appropriately.

Figure 25

Blood Pressure Checked in Past 2 Years
by gender



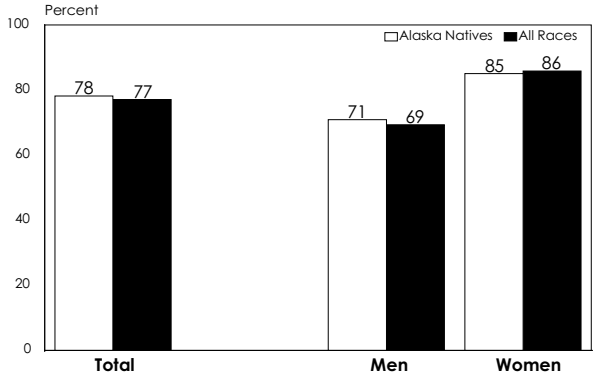
Almost all Alaska Natives report having had at least one blood pressure test in the past two years. No difference is seen between Alaska Natives and the overall population. As educational level increases, the prevalence of having had a blood pressure test increases: 98% of Alaska Natives with a college degree have had a blood pressure test, compared to 92% of those with less than a high school degree (data not shown).

Routine Checkup

The Guide to Clinical Preventive Services provides a list of recommended preventive health care practices specific to an individual's age, sex and risk factors.[19] Therefore, the optimal frequency for routine checkups depends on an individual's age, sex and risk factors.

Figure 26

Routine Checkup
(in the past two years)
by gender



Almost 80% of Alaska Natives report having had a routine checkup in the past two years; women are more likely to report having had a checkup than are men, and the rates are similar for Alaska Natives and all Alaskans.

Cancer Screening Among Women

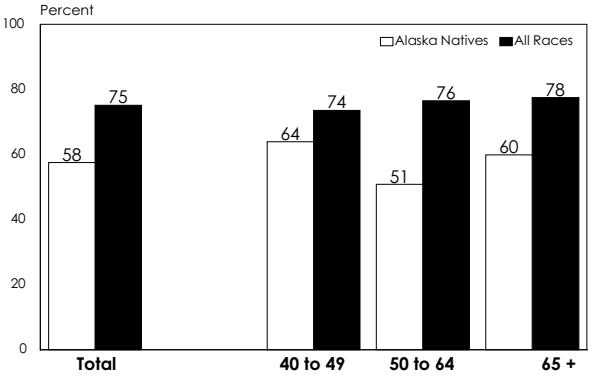
Detecting breast and cervical cancer in early stages is the best way to decrease morbidity and mortality from these diseases. Breast cancer is the most commonly diagnosed cancer among Alaska women, including Alaska Native women. Additionally, Alaska Native women have higher cervical cancer mortality rates than the overall Alaska population.

Pap tests are recommended every one to three years beginning at age 18 or at onset of sexual activity. Clinical breast exam is recommended every one to three years at ages 20-29, and every year after age 30. Mammography is recommended every one to two years at ages 40-49, and every year after age 50.[21]

Figure 27

Mammography and Breast Exam

(ever had, women aged 40 and above) by age

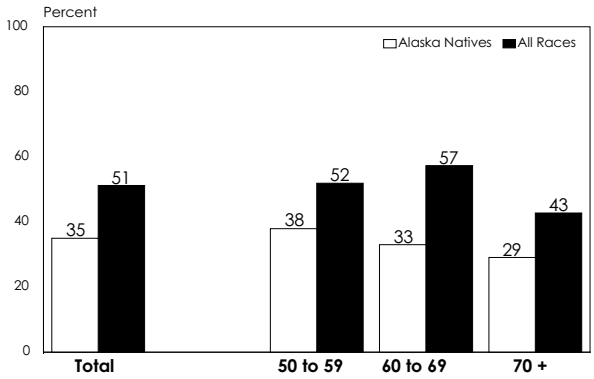


Alaska Native women are less likely to report ever having had mammography and breast exam. Among Alaska Native women aged 40 years or higher, 58% report ever having had mammography and breast exam, as compared to 75% of all Alaska women aged 40 or higher.

Figure 28

Mammography and Breast Exam

(had last year, women aged 50 and above) by age

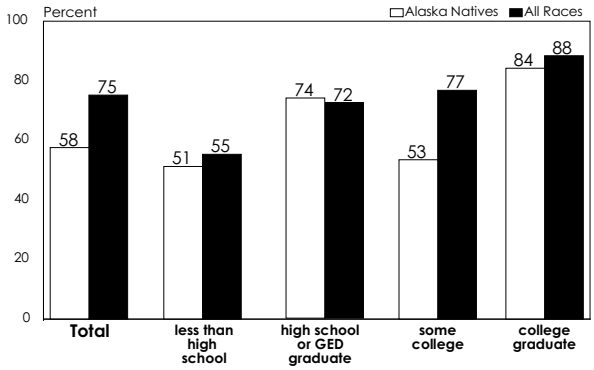


Among Alaska Native women aged 50 years or higher, only 35% have had a mammogram and breast exam in the past year.

Figure 29

Mammography and Breast Exam

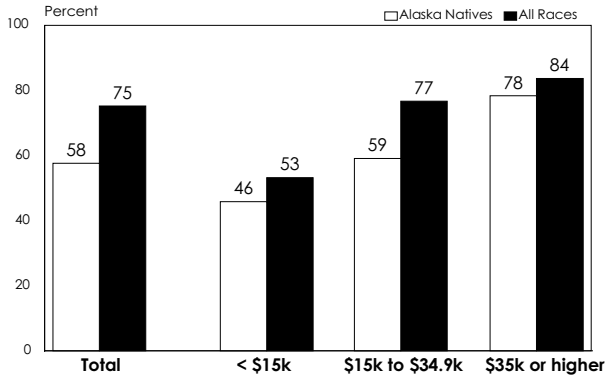
(ever had, women aged 40 and above) by education



In general, the prevalence of having had a mammogram and breast exam increases with educational level. Among Alaska Native women aged 40 or higher, 84% of college graduates report ever having had a mammogram as compared to 51% of those who did not graduate from high school. The differences between Alaska Native women and all Alaskans are not as marked when the data are examined by educational level.

Figure 30

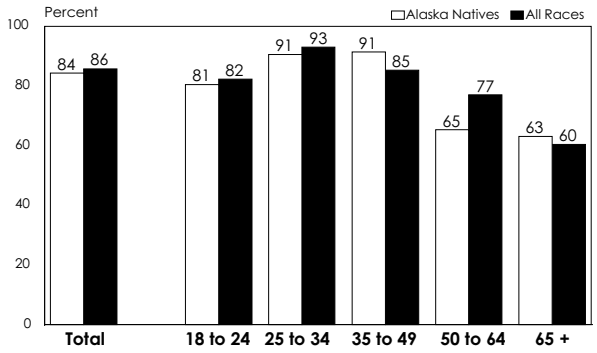
Mammography and Breast Exam
(ever had, women aged 40 and above)
by income



The prevalence of having had a mammogram and breast exam also increases with household income and the differences between Alaska Native women and all Alaskans are not as marked when the data are examined by income level.

Figure 31

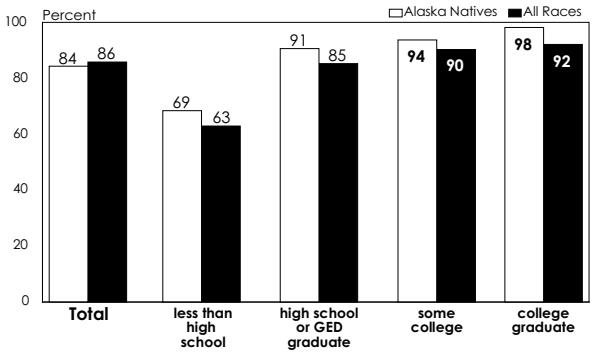
Pap Test
(had in past two years)
by age



Among Alaska Native women, 84% report having had a Pap test in the past two years. Rates are similar for Alaska Native women and all Alaskan women. Older women are less likely to have had a Pap test in the past two years.

Figure 32

Pap Test
(had in past two years)
by education



The prevalence of having had a Pap test increases with education among Alaska Native women; a similar trend is seen for all Alaska women. Only 69% of Alaska Native women with less than a high school education report having had a Pap test in the past two years.

Other Health Issues

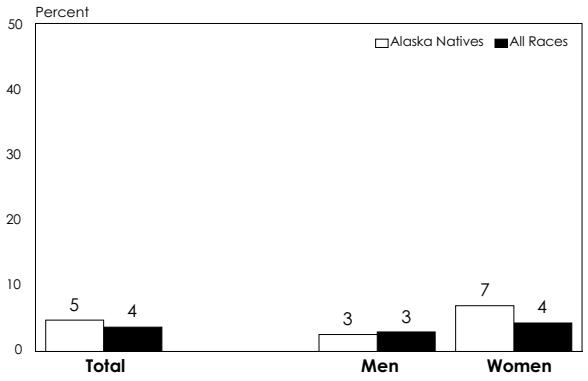
Diabetes

Diabetes is characterized by elevated blood glucose levels and is caused by either a deficiency of insulin or a decreased ability of the body to use insulin. Diabetes can be classed into two main types: non-insulin dependent diabetes mellitus (NIDDM) and insulin-dependent diabetes mellitus (IDDM). NIDDM, the most common type, accounts for 90% of people with diabetes. People with diabetes are at increased risk for heart disease, blindness, kidney failure, and non-traumatic lower extremity amputation. American Indians/Alaska Natives, African Americans, and Hispanics have a much greater risk of developing diabetes. Blood glucose monitoring, regular physical activity, and meal planning are essential to maintaining health. In many cases, oral medications or insulin injections are also required for maintaining glucose control.

The prevalence of diabetes among Alaska Natives has been increasing since the 1960's.[22] The prevalence has been found to be higher among Alaska Indians and Aleuts than among those with Eskimo heritage.[23]

Figure 33

Diabetes
by gender



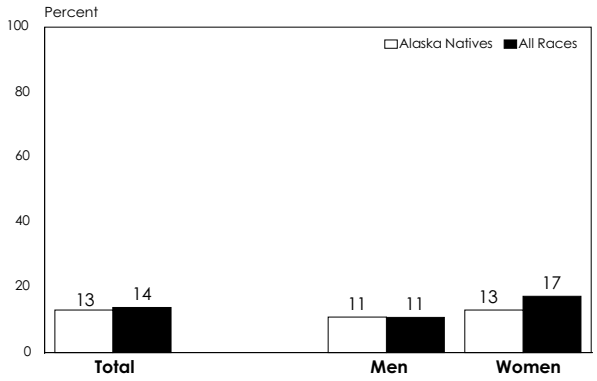
Approximately 3% of Alaska Native men, and 7% of women report having been told that they have diabetes. The prevalence of diabetes among Alaska Natives is slightly higher than that among the overall population. Similar to patterns seen in the overall population, the prevalence increases with increasing age.

Health Care Access

Access to health care involves far more than insurance coverage. Health care access also refers to the ability to get care and preventive services when needed. Although Alaska Natives receive health services at no cost through the Indian Health Service and tribal health organizations, distance from facilities and transportation costs may limit access. Additionally, other barriers may exist to receiving necessary preventive services.

Figure 34

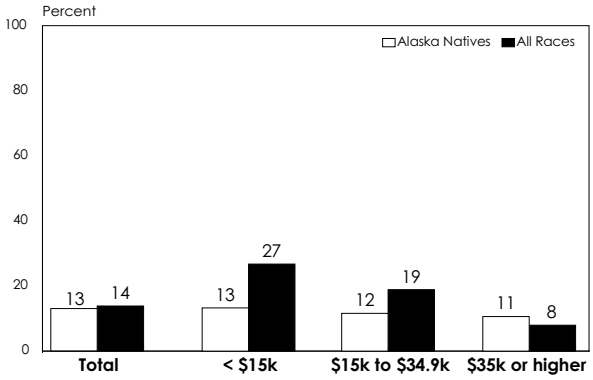
Unable to See Doctor
(due to cost, in the past year)
by gender



Among Alaska Natives, 13% report not being able to see a doctor in the past year due to cost. The rate is similar to that for all Alaskans (14%).

Figure 35

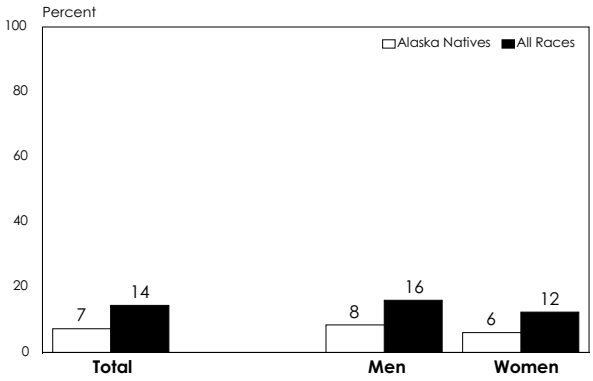
Unable to See Doctor
(due to cost, in the past year)
by income



Among all Alaskans, people in the lowest household income category were most likely to report not being able to see a doctor due to cost in the past year; among Alaska Natives, the prevalence did not change as dramatically with household income.

Figure 36

No Health Care Coverage
by gender



Alaska Natives are less likely to report having no health care coverage (7% as compared to 14% for all Alaskans).

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